

REV	Description	DATE	BY
A4A	Initial production Release.	11/19/2012	GC
A5	On the initial production release the processors were to be found incorrect as supplied by TI. Parts while marked AM3359 were actually AM3352. This revision uses the correct parts.	1/2/2013	GC
A5A	1. Deleted R29-R44 from the LCD lines. 2. Added 47pf capacitors C156-C173 to LCD data lines to ground. 3. Changed schematic revision to A5A. 4. Changed a few footprints after PCB update for above changes. 5. Added access point for the battery function of the TPS65217C. 6. Added Ferrite beads in series with LED power and 5V power rail of the USB host connector. Required to pass FCC/CE testing due to noise emissions on that pin. 7. Added power button to enable sleep, wakeup, power down and power up features on the system. 8. Added Modification to add 100K ohm resistor to ground to prevent crosstalk when serial cable is not plugged in.	2/8/2013	GC
A5B	1. Added 100K pulldown on J1 pin 4 to prevent crosstalk when serial cable is not connected into PCB layout. 2. Changed the LED resistors to 4.75K to lower the brightness.	5/21/2013	GC
A5C	1. Changed R46, R47, R48 to 0 ohms. 2. Changed R45 to 22 Ohms. Change was made due to production failures on some boards due to differences in impedances.	6/12/2013	GC

This schematic is ***NOT SUPPORTED*** and **DOES NOT** constitute a reference design. Only "community" support is allowed via resources at BeagleBoard.org/discuss.

THERE IS NO WARRANTY FOR THIS DESIGN , TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE DESIGN "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE DESIGN IS WITH YOU. SHOULD THE DESIGN PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

PAGE NO.	SCHEMATIC PAGE
1	COVER PAGE
2	POWER MANAGEMENT
3	PROCESSOR 1 OF 3, JTAG HEADER
4	PROCESSOR 2 OF 3, UAB PORTS
5	PROCESSOR 3 OF 3
6	LED, CONFIGURATION AND BUTTON
7	DDR3 MEMORY
8	eMMC FLASH
9	10/100 ETHERNET
10	HDMI FRAMER
11	EXP CONN, uSD

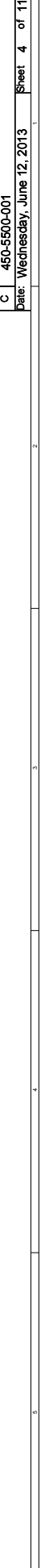
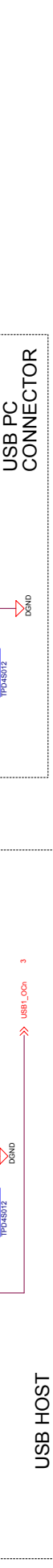
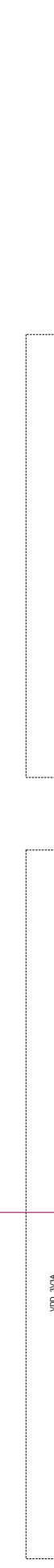
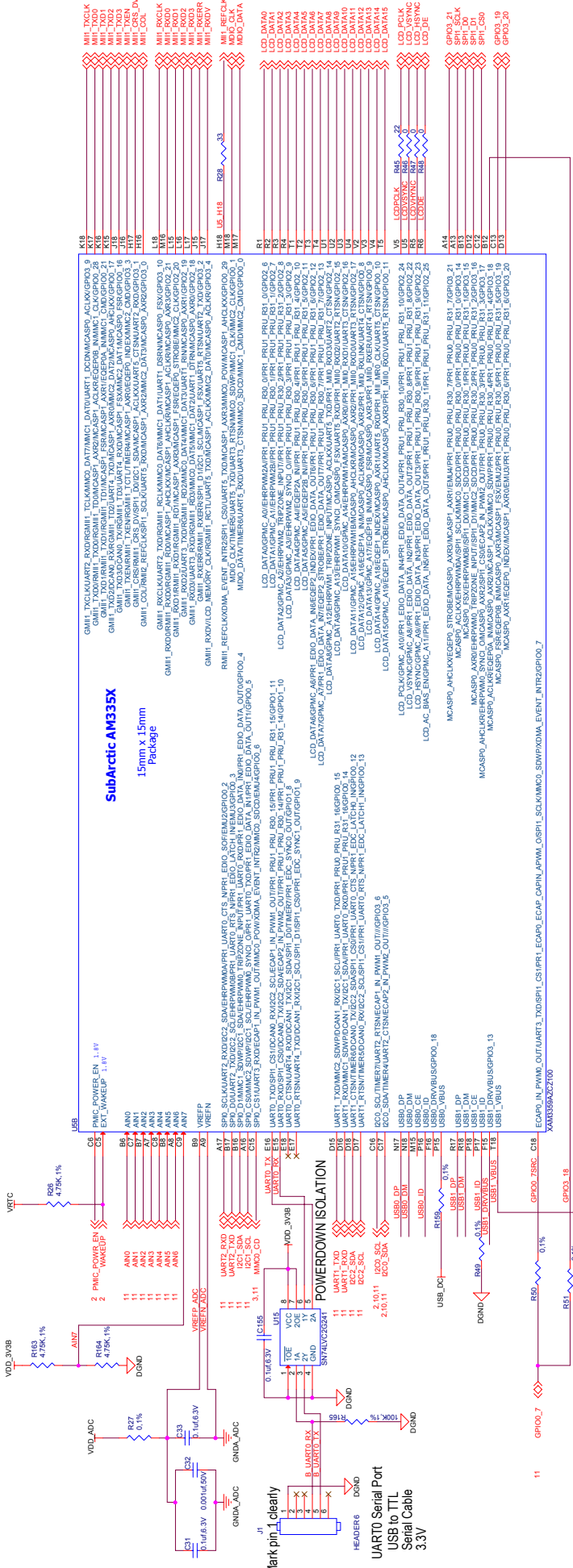
NOTE: PCB Revision for this board is Rev B4.



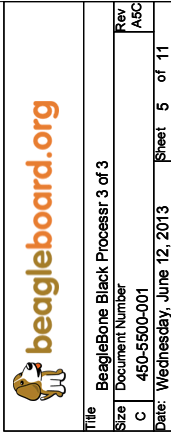
Title BeagleBone Black Cover Page		
Size	Document Number	Rev
B	450-5500-001	A5C
Date: Wednesday, June 12, 2013		Sheet 1 of 11



BeagleBone Black Power Management		Rev A50
Document Number	450-5500-001	
Date:	Wednesday, June 12, 2013	Sheet 2 of 11

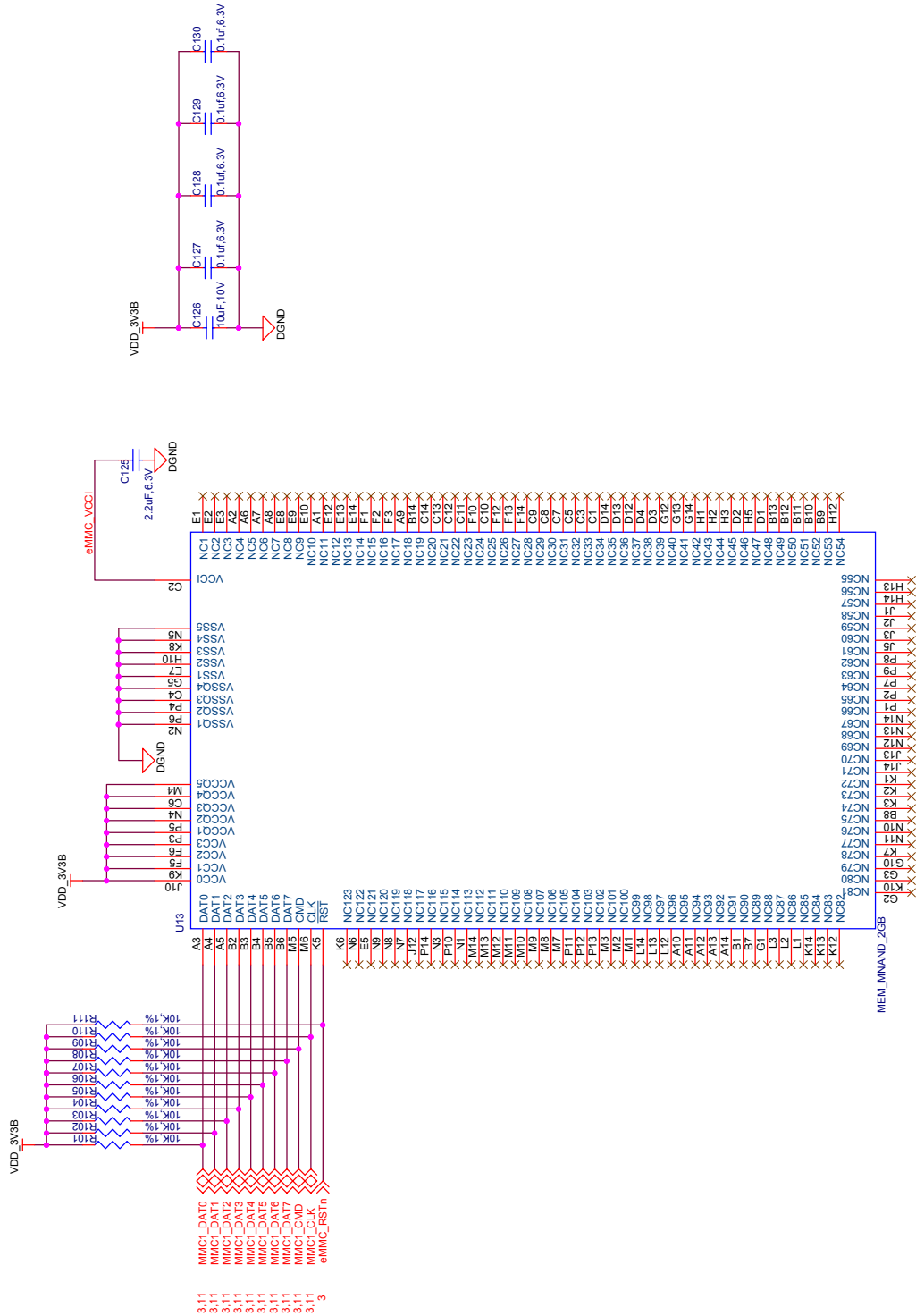


Title		BeagleBone Black Processor 2 of 3, USB, and Serial
Size	Document Number	450-5500-001
Rev	ASC	
Date:		Wednesday, June 12, 2013
Sheet		4 of 11



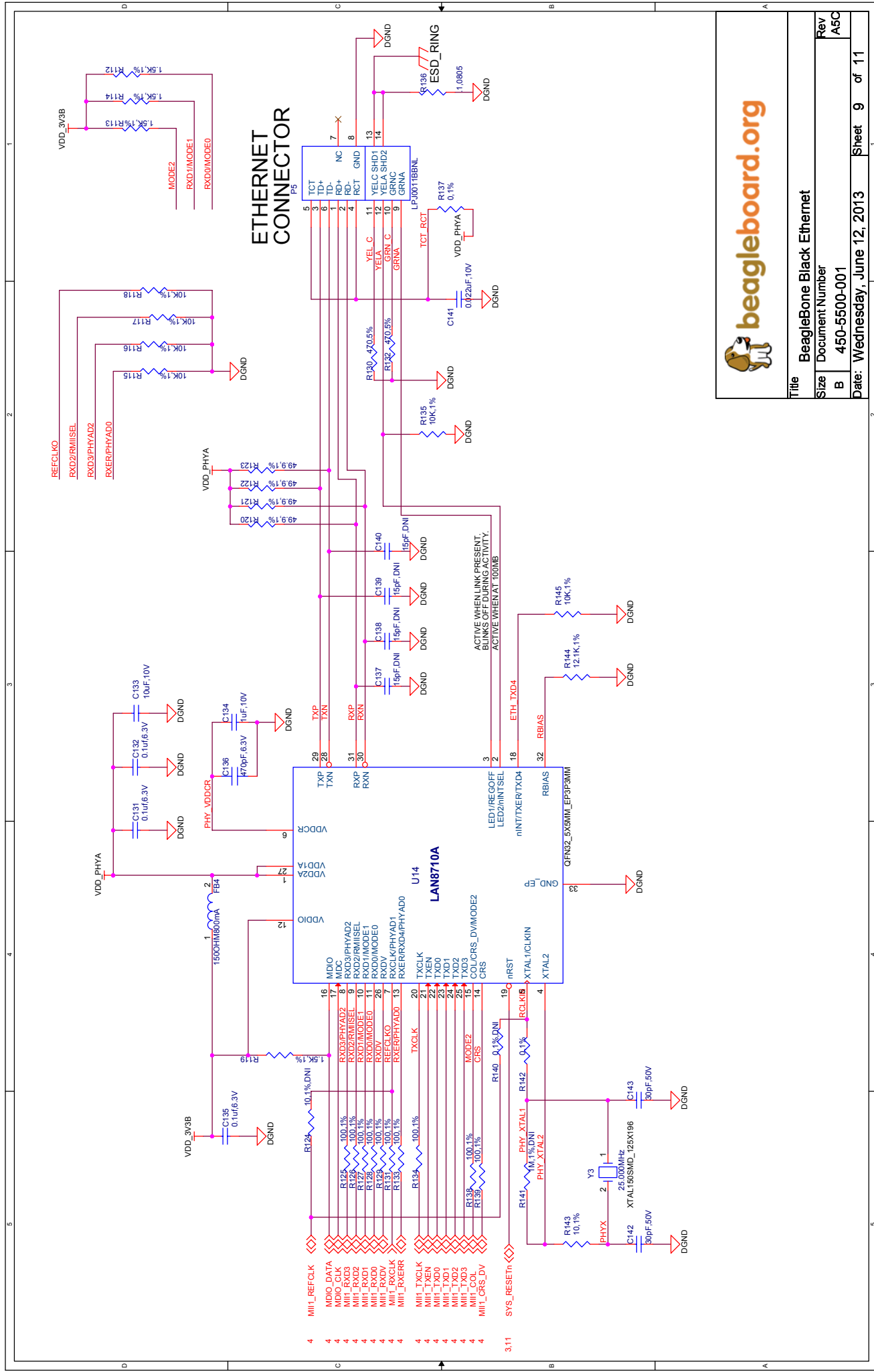


BeagleBone Black DDR3 Memory		Rev A50
Document Number		
B	450-5500-001	
Date:	Wednesday, June 12, 2013	Sheet 7 of 11

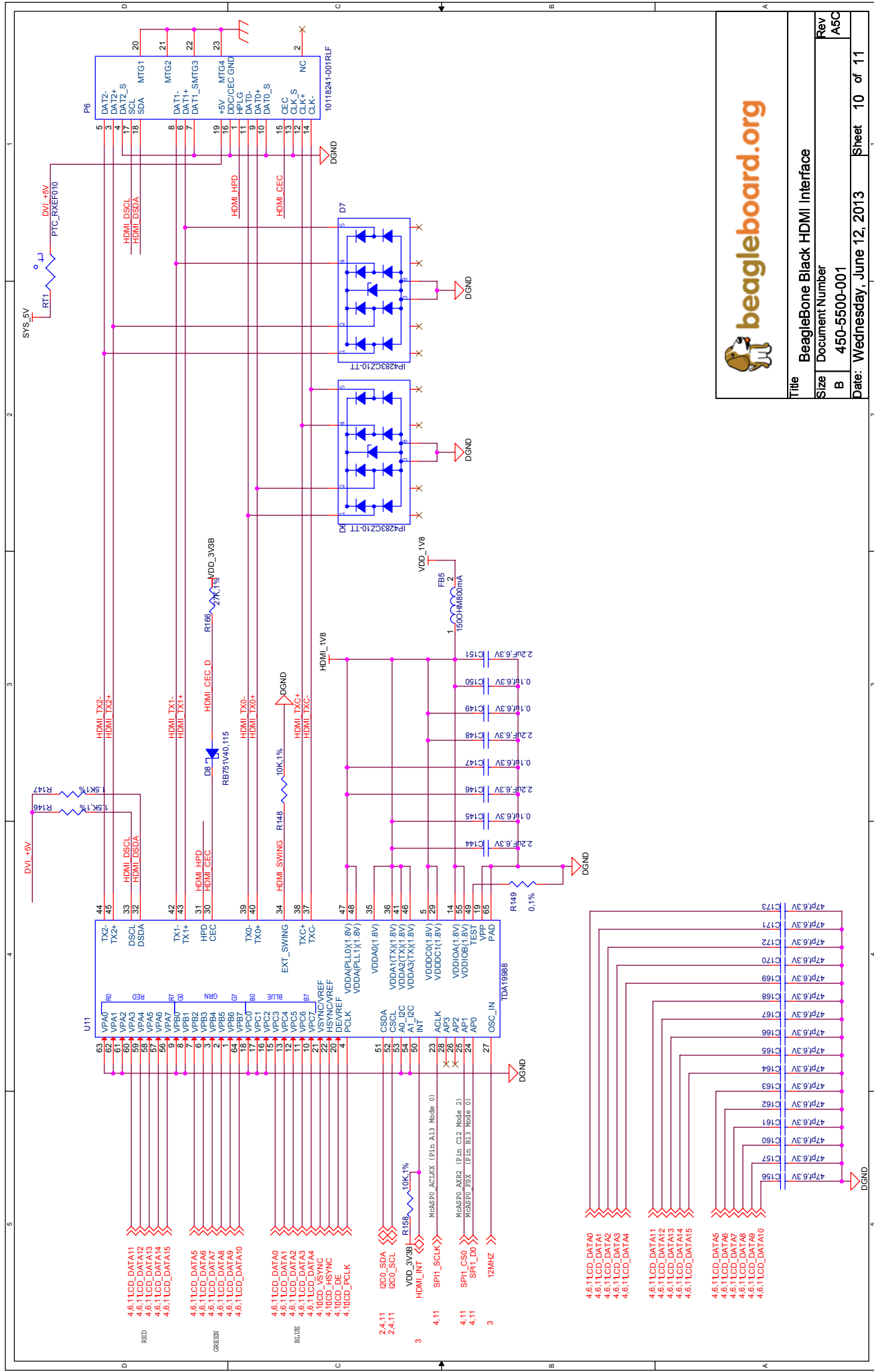


Title	
Beagle BoneBlack 2G eMMC	
Size	Document Number
B	450-5500-001

Date: Wednesday, June 12, 2013



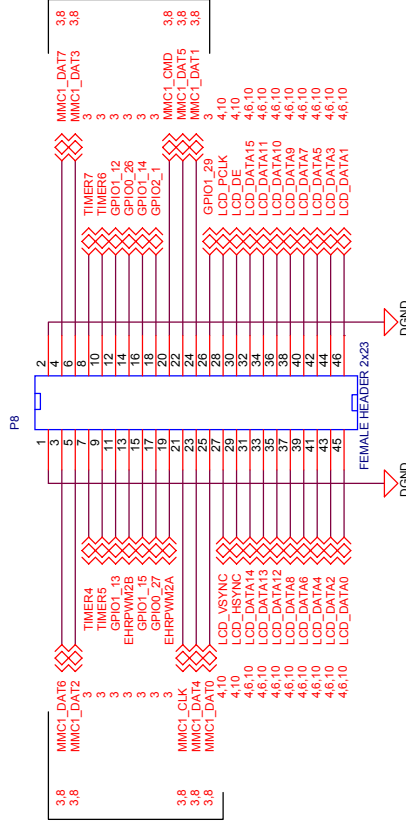
Title		BeagleBone Black Ethernet	
Size	Document Number	B	450-5500-001
Rev	A5C	Sheet	9 of 11
Date: Wednesday, June 12, 2013			



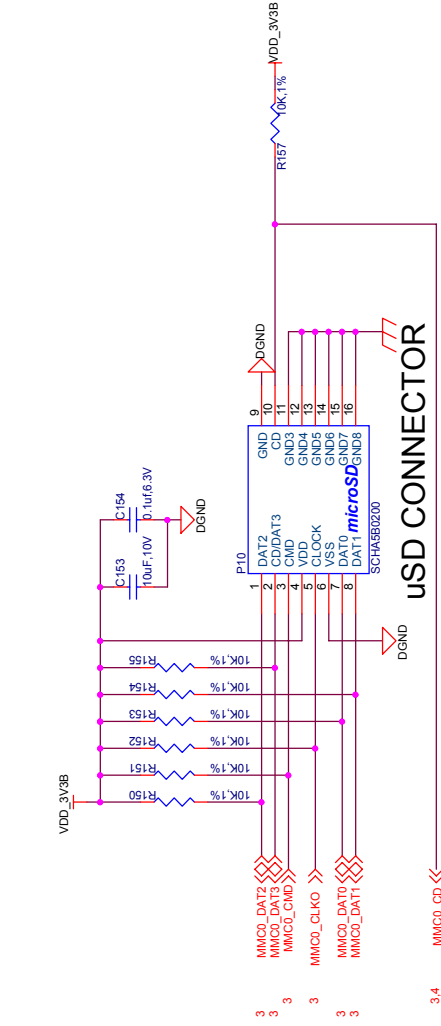
beagleboard.org

Title		BeagleBone Black HDMI Interface	
Size	Document Number	Rev	
B	450-5500-001	A5C	
Date: Wednesday, June 12, 2013		Sheet	10 of 11

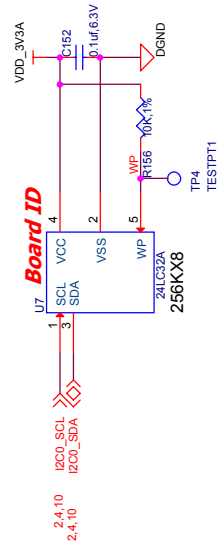
CAUTION: USED ON BOARD



EXPANSION HEADER



uSD CONNECTOR



beagleboard.org

Title		BeagleBone Black Expansion Headers, uSD and EEPROM
Size	Document Number	Rev
B	450-5500-001	A5C
Date: Wednesday, June 12, 2013		Sheet 11 of 11